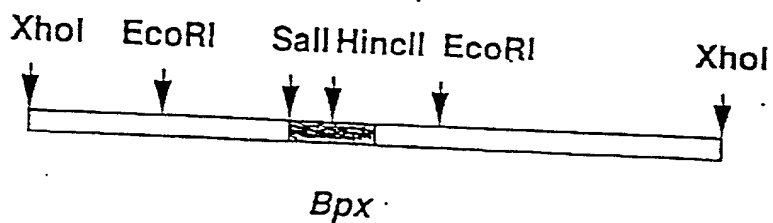
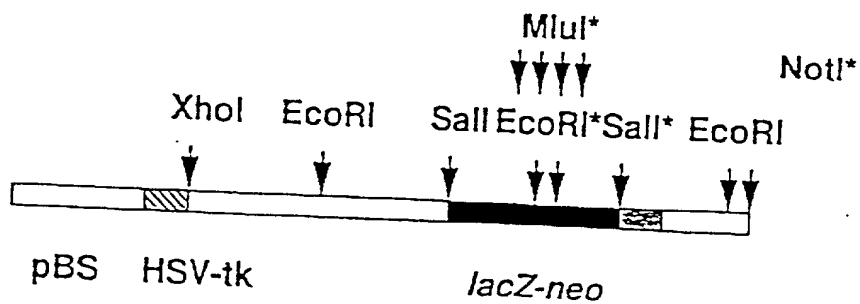


FIGURE 1

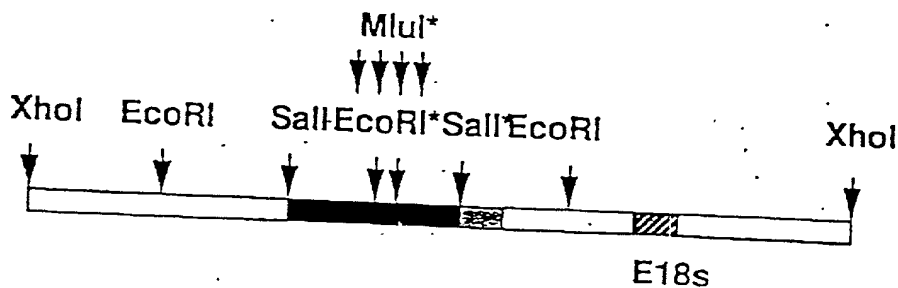
**a**



**b**



**c**



\* introduced sites

FIGURE 2

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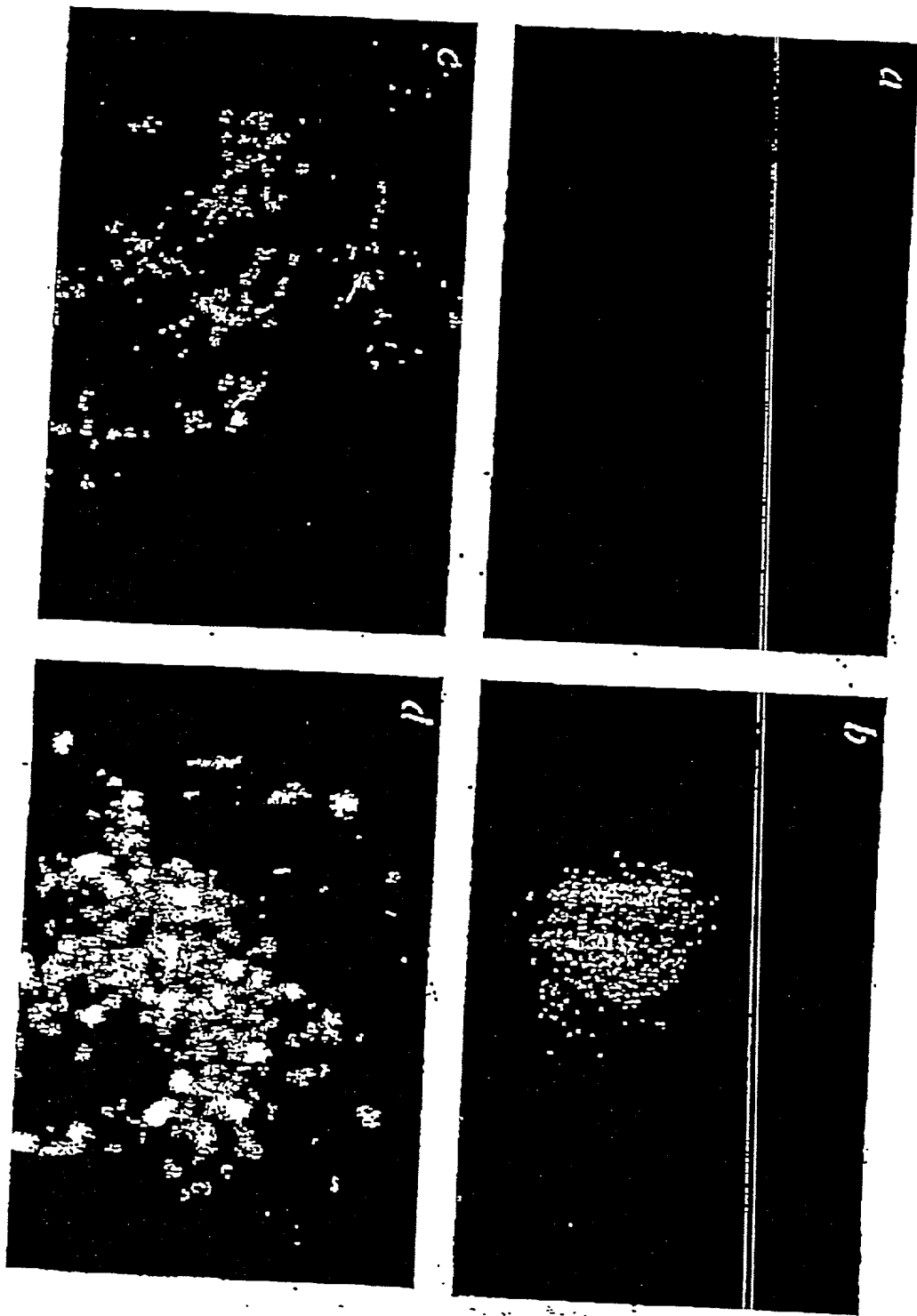


FIGURE 3

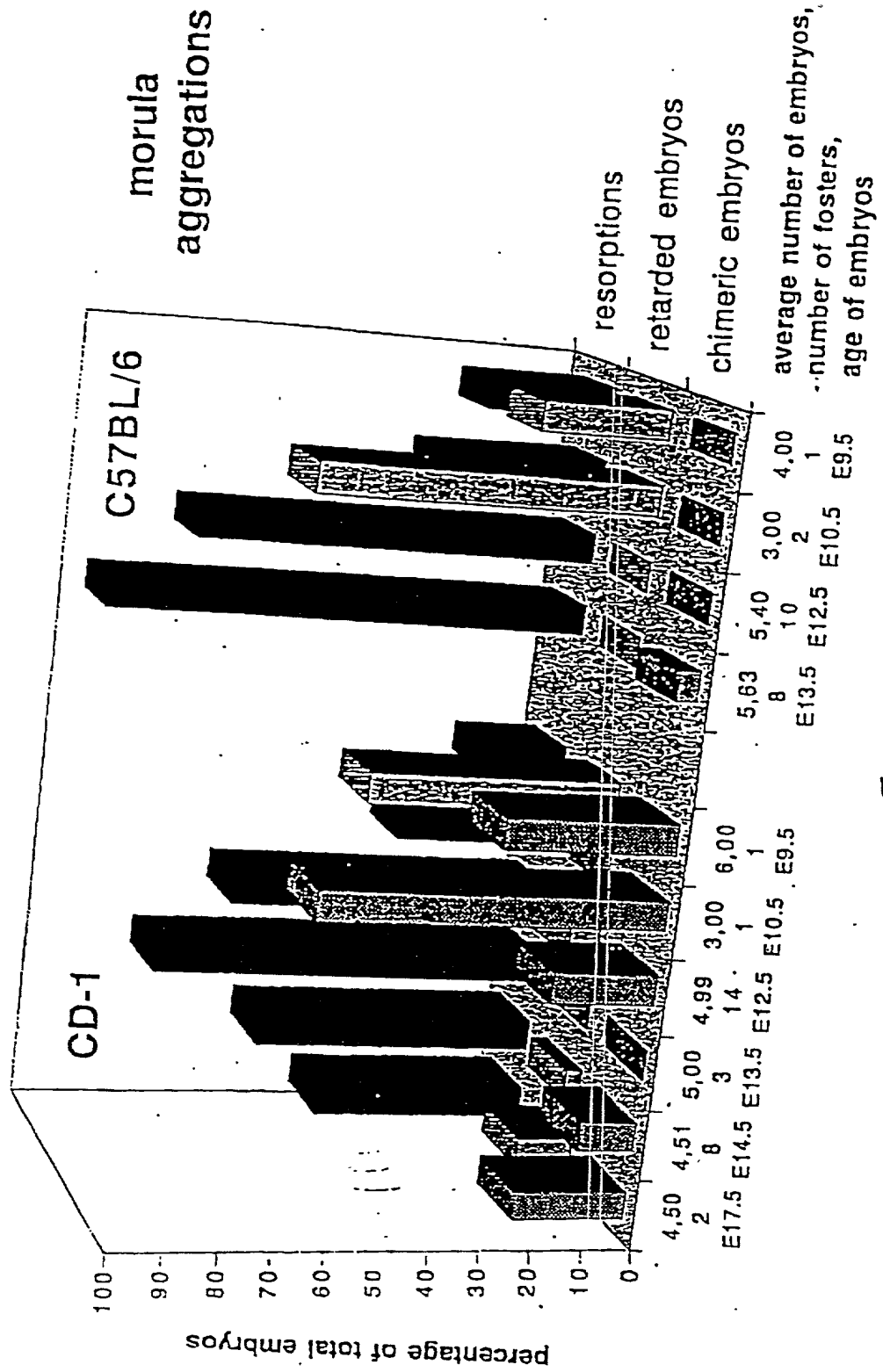


FIGURE X

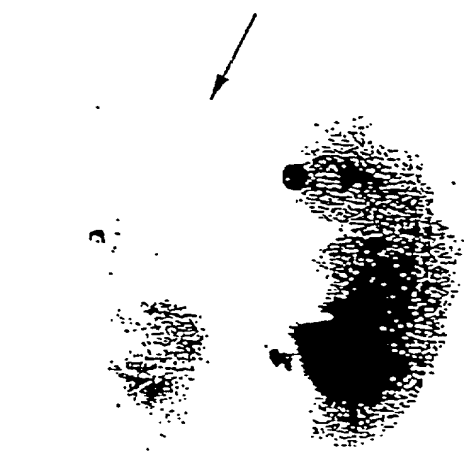
E17.5



E14.5

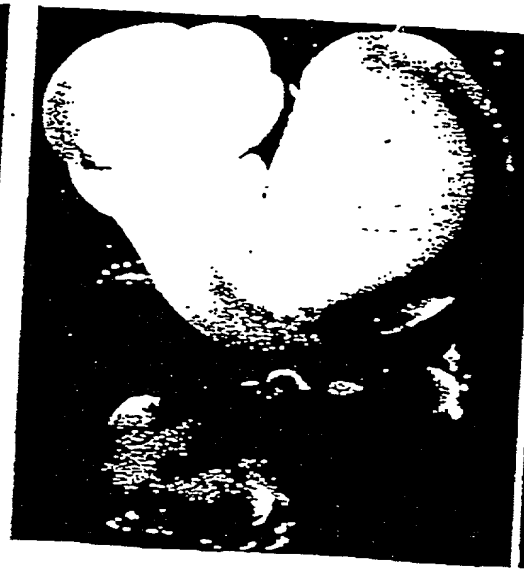


E12.5



FIGURE

E10.5



E9.5



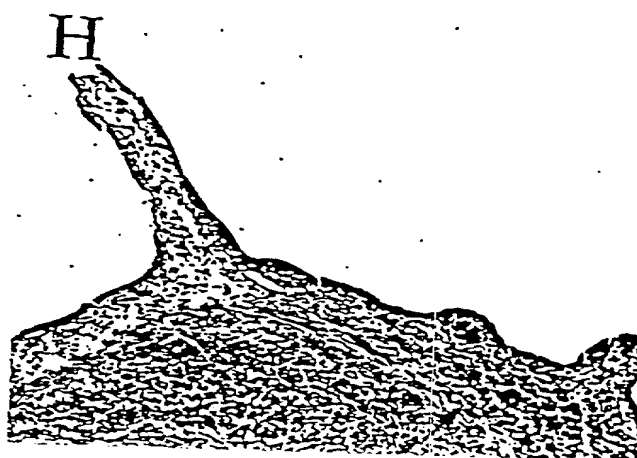
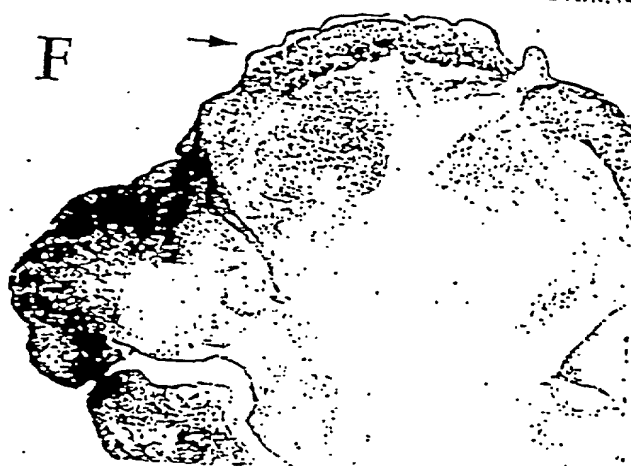
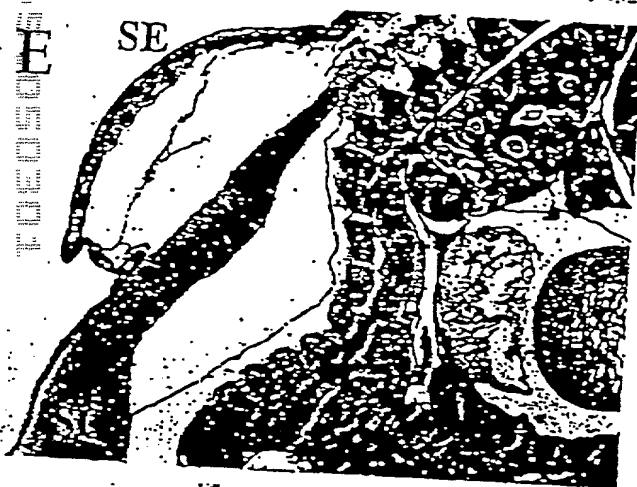
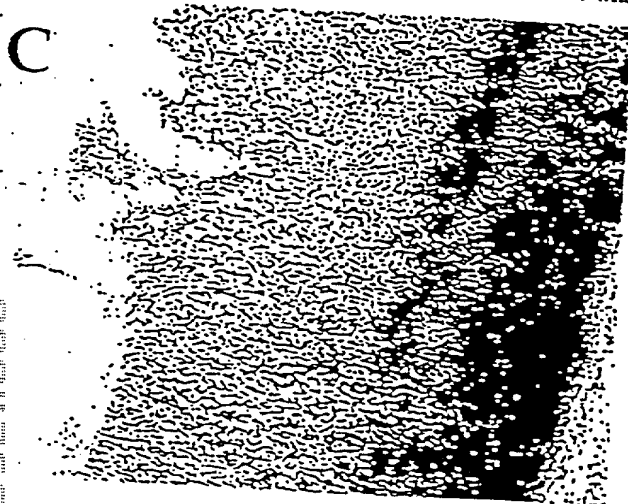
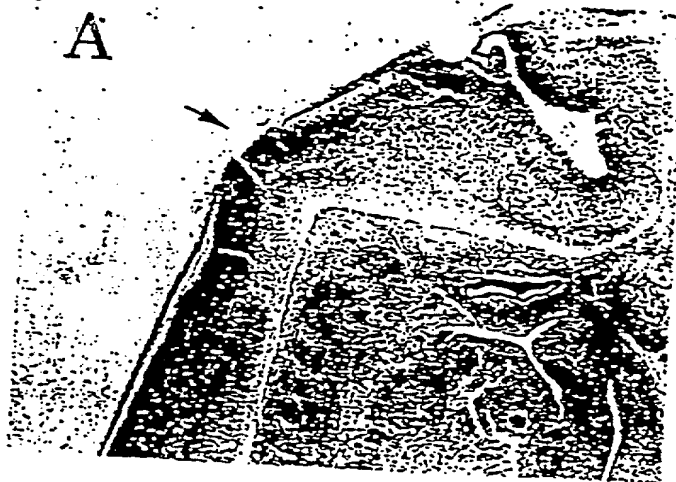


FIGURE 6

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FIG. 7

Sequence clone *Bpx* promoter murin *SpeI*-*Sall* fragment

ACTAGTCATATAGCTGGCTCTTTTACAAAAGGCTTCAACACCCCTCCCC  
CACACTTTAGTCATCCGTCATCTCTTCCTCATCAGGAAATATTATGAGAA  
TTTTCCCAITTTAAAATCACACAGGTTGTGAAAATTACAGAAACCAGGGTA  
CAGAATATTTAAACCACTGTCAGTTACATCATCCAAAGGCCACCTATGCT  
TATTTTTGGTAATTTTAAACCTCAAAGGATCTCTTTGTGGGCTCCTCCACT  
ACCCTCCTCTCTTTCCCAGAGCCTCAGGTTATAACCAAAGGGATAGACTA  
AAGACAATCCAGTACCTTGCCCATTTTTTTCATTCTTGTCAGTGTTCCTCA  
TATAGCTCTTTTGAAATTATGAACATATAGTATCAGTTGAAAACGGAATG  
AATGATACTGCATTTCTGCAAAATTCCACAGGCTATAGGGTGGAAGATG  
AGCCATAGGTGGAGGAATCAGCCATATTAGAGAATCTGGGAAGGCAAG  
AGGTGTTGAAATTTTGATTCATCTACTAATTTACTGGCTCAGGATTTGTC  
AATCACTGCAGCCTGGCAAATGAGATTAGAGAAGAGTCCTGGGAGGGA  
AGGGGTGACGCAGCAACCTGCATACACTTAAAAAAAAGAGCTGAGAG  
ACAACTGCGTAATCATACTGCGGCACCAGTTCCCTCCATCCCTCCGCCCC  
GAGTGGCTGGAGCAGCTGCTTGCGGAGGTCTGCCCACTGCGGCTCTCTG  
CAGTCTCTAGCCTGTTCCCTCAGGGCCTAGAGTCTCCGCCAGACAGCCG  
GTTTCAATTCTGCTATCCCAGCTTCAGCACCGTCTTTTATACTGCTTGCTG  
CCTGCCATCAGTGCAGCCGCCGCCGCTCTTGTTTCATCTCTGCCAGATC  
ATCGCGCATCTGCTGTATTGGTGAGTCTTCTGCGGAGGTGAGGTCTCCT  
GATCTGCGGGCTTAGCCACCATAAGTGCAGGCGATCGTTTGAAAACAAT  
GGCTGAATCAGTCGACCTCGAGGGGGGGCGTACCTTGCCCATTTTTTTCA  
TTCCCTGTCAGTGTTCATATAGCTCTTTTGAAATTATGAACATATAGTA  
TCAGTTGAAAACGGAATGAATGATACTGCATTTCTGCAAAATTCCACAG  
GCTATAGGGTGGAAGATGAGCCATAGGTGGAGGAATCAGCCATATTAGA  
GAATCTGGGAAGGCAAGAGGTGTTGAAATTTTGATTCATCTACTAATTTA  
CTGGCTCAGGATTTGTCAATCACTGCAGCCTGGCAAATGAGATTAGAGA  
AGAGTCCTGGGAGGGAAGGGGTGACGCAGCAACCTGCATACACTTAAA  
AAAAAAGAGCTGAGAGACAACCTGCGTAATCATACTGCGGCACCAGTTCC  
TCCATCCCTCCGCCCCCGAGTGGCTGGAGCAGCTGCTTGCGGAGGTCTG  
CCCACTGCGGCTCTCTGCAGTCTCTAGCCTGTTCCCTCAGGGCCTAGAGT  
CTCCGCCAGACAGCCGTTTCAATTCTGCTATCCCAGCTTCAGCACCGT  
CTTTTATCCCCACTGCTTGCTGCCATCAGTGCAGCCGCCGCCGCT  
CTTGTTTCATCTCTGCCAGATCATCGCGCATCTGCTGTATTGGTGAGTCT  
TCCTGCGGAGGTGAGGTCTCCTGATCTGCGGGCTTAGCCACCATAAGTG  
CAGGCGATCGTTTGAAAACAATGGCTGAATCAGTCGAC

[SEQ ID NO:1]

FIG. 8

Sequence Bpx murin cDNA identical to genomic DNA

GTACCTTGCCCATTTTTTTCATTCCTTGTCAGTGTTCATATAGCTCTTTT  
GAAATTATGAACATATAGTATCAGTTGAAAACGGAATGAATGATACTGC  
ATTTCTGCAAAATTCCACAGGCTATAGGGTGGAAGATGAGCCATAGGTG  
GAGGAATCAGCCATATTAGAGAATCTGGGAAGGCAAGAGGTGTTGAAAT  
TTTGATTCATCTACTAATTTACTGGCTCAGGATTTGTCAATCACTGCAGC  
CTGGCAAATGAGATTAGAGAAGAGTCCTGGGAGGGAAGGGGTGACGCA  
GCAACCTGCATACACTTAAAAAAAAGAGCTGAGAGACAACCTGCGTAAT  
CATACTGCGGCACCAAGTTCCTCCATCCCTCCGCCCCGAGTGGCTGGAG  
CAGCTGCTTGCGGAGGTCTGCCCAGTGCAGGCTCTCTGCAGTCTCTAGCCT  
GTTCTTCAGGGCCTAGAGTCTCCGCCCAGACAGCCGGTTTCAATTCTGC  
TATCCCAGCTTCAGCACCGTCTTTTATCCCCACTGCTTGCTGCCTGCCATC  
AGTGCAGCCGCCGCCGCTCTTGGTTCATCTCTGCCAGATCATCGCGCAT  
CTGCTGTATTGGTGAGTCTTCCTGCGGAGGTGAGGTCTCCTGATCTGCGG  
GCTTAGCCACCATAAGTGCAGGCGATCGTTTGAAAACAATGGCTGAATC  
AGTCGACCATAAAGAAGTGTCTGAATCCAACCAAGAAGAGCTTGGCAGC  
CAGGTAATGGCGGAGGGGGCCCGGGGAAAGTCAAGGACCGCAGTGAAGGT  
GTCTCCATTGAGCCTGGAGATGGCGGGCAACATGGTGAAGAAACCGTGG  
CTGCTGGAGTAGGGGAAGAGGGGAAAAGGTGAAGAAGCTGCTGCAGGGT  
CTGGGGAAGATGCTGGGAAGTGCAGGAGGCACTGATGAGGACTCAGACT  
CAGACCGTCCAAAAGGACTTATCGGTTATCTTTTAGATACCGATTTCGTT  
GAAAGTCTCCAGTGAAAGTTAAGTGCCGAGTGCTAGCTCTTAAAAAGC  
TTCAAACAAGAGCTGCCCATTTGGAATCCAAATTCCTGAGGGAATTTTCT  
GACATTGAAAGGAAGTTTGCTGAAATGTACCAACCCTTACTAGAAAAAA  
GACGACAGATCATCAATGCAGTCTATGAGCCACAGAAGAGGAATGTGA  
GTATAAATCGGACTGTGAGGACTATTTTGAGGAGGAGATGGATGAGGAG  
GAAGAGACTAACGGCAACGAAGACGGTATGGTGATGAATACGTGGAT  
GAAGATGATGGTTATGAGGACTGTTATTATGATTATGATGACGAGGAAG  
AAGAGGAGGAGGAAGATGACAGCGCTGGGGCCACCGGAGGAGAAGAG  
GTTAACGAAGAGGATCCTAAGGGGATTCCGGATTTTGGTTGACTGTTTT  
AAAAAATGTTGAAGCACTCACTCCTATGATTAAGAAATATGATGAGCCT  
ATTCTGAAGCTGCTGACAGATATTAAAGTGAAGCTTTCGGATCCCGGGG  
AGCCTCTCAGCTTCACACTCGAATTTCACTTCAAGCCCAATGAATATTTT  
AAAAATGAGCTGTTGACAAAGACTTATGTGCTGAAGTCAAAGCTTGCAT  
GCTACGATCCCCACCTTATAGGGGAAGTGCATTTGAGAACCATC  
AAGAAGAAGCAGAGACATCGCGTCTGGGGAAGTGTCCGAAGTGTGACTG  
AAGATTTTCCCAAGGACTCTTTCTTCAATTTCTTCTCTCTCATGGGATCA  
GCTTAAATGGAGGGGATGAAAATGATGATTTTTTACTTGGTCATAATCTG

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FIG. 8 cont.

CGTACTTACATAATTCCAAGATCAGTGTATTTTTCTCAGGAGATGCACT  
TGAATCTCAGCAGGAGGGTGTAGTTAGGGAAGTTAATGACGAAATATAT  
GACAAAATTATTTATGATGATTGGATGGCTGCAATTGAAGAGGTTAAAG  
CCTGTTGCAAAAATCTTGAGGCATTAGTAGAAGATATTGATCGTTAAAC  
AGAGTAGATGCTTTTGAACTAACTGCTCTACATGCAGTTACTGAAGACA  
TAAGCAGTTAATATTGTCTTGTGTTCTGCATTTTTCTGTGATGCCAGTT  
TAAAAATTCAAATACTAATTAATCTGACCTTGCATTGTAGTGGTATGATG  
TTTTCAAGACATGTAGACTGTGATAAATGATTAAGACATTAATAGTCTGT  
AGTATAACCCCTTCTGAAGTCCTTGTGCCATGTATCTATTAATCTGTGGCT  
GTGAATATTATTAGAAGTGCTAAATGAGATTATTTGTTTGCAAAGAAAAT  
ATTGGAAACCTACCTAAGAGTGCTTTGCTATTTTCCCCCTTATCCTCTTAG  
TGCTTTGGCCAATTGACTTTATTGTGCCTGCTTCATTTTGCAGTAAATATG  
CAGTAGAATTTAAACTTGAATGCCTAAGAGGCCTGCATATGATTGAGA  
ATTCAGGCAAAATCATATTTATTATTGATAACAGCTAGTGCAAGGCTTC  
TGATTGTATGTGACTGTGATAAATAATAAACTCAATTGTATTGAAGTTA  
CTGTTTATCATTGACATGTGAGTTACAGTATTTTCAAATGTTGCAATATT  
GTCCTGTGTAATTGTGTAAACTGTGATTACAGTGTACATTTTTTTCATAAT  
ATACTGAATCATTCAATTGAAATGGACACTTTACCATTTCTGAAAATACAT  
TTCATATTCTGTTCACTGAAAAATAAAATGAATAAAAAATTT

[SEQ ID NO:2]

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FIG. 9

**BPX human cDNA identical to genomic DNA**

TGTTAGAGAGCCTGGGAAGGTGAGcAGAGcTGAAAACCTTGATAGATCTA  
ATAATTTACTGGCTCTGGGTTTGTcAGTCACTACATTGCAGCAAATGAGA  
TTAGAGCATAGTTGTGGGAGGGAAGGAGGTGACGCAGCAATCTATTTGC  
ACCTAGAAATTTTAGGCAAGTGATAGCTGCGTAATCATACTGCGGCACC  
GTTTTTTTCTTGCAGCAGTAGCTGCTTGC GGAGGAGGTCTGCCCACTGCA  
GCTCTCTGCAGTCTCCGGCTCTCTCCTGCAGGATCGGTCAACGCAGCCGT  
CGCCGCCCTCTGCACCCAGCCAGGTGCGCACTGCTTCAGTCCGGTTCTC  
AAAGCCTCAGCACCATCTTTTATCCCCGAGCAGCCTGGATCGTCGTTCCC  
TCAGTCCGGACGCCACTGCTAGGTCCGACCACCGCCGCTTCTGATATTTC  
GGTGAGTCTTTTCTGTGGAGGTTTGGTCTCCCGATCTCTGTGGTAGCCA  
CCTTAGGCGTGTACGGTCCTTTGAAAAATGGCCGAGTCAGAGAACCGCA  
AGGAGCTGTCAGAATCCAGTCAAGAAGAGGCTGGTAATCAGATAATGGT  
GGAAGGGCTCGGGGAACATCTGGAGCGCGGTGAAGATGCCGCTGCTGG  
GCTTGGAGACGATGGGAAGTGCGGTGAAGAAGCTGCCGCTGGGCTTGG  
GGAAGAAGGGGAAAACGGTGAAGATACTGCTGCTGGGTCCGGGGAAGA  
TGGGAAAAAAGGTGGCGATACTGATGAGGACTCAGAGGCAGACCGTCC  
AAAAGGACTTATC  
GGTTATGTTTTAGATACAGACTTTGTTGAAAGTCTACCTGTGAAAGTTAA  
GTACCGTGTGTTAGCCCTTAAAAAGCTTCAAACCTAGAGCGGCCAATTTA  
GAATCCAAATTCCTGAGGGAATTTTATGACATTGAAAGAAAGTTTGCTG  
AAATGTACCAACCCTTACTGGAAAAAAGACGTCAGATCATCAATGCAAT  
CTATGAACCTACAGAAGAGGAATGTGAATATAAATCAGACTCTGAGGAC  
TGTGATGATGAGGAAATGTGTCATGAAGAGATGTATGGTAATGAGGAGG  
GTATGGTACATGAATATGTGGATGAGGACGATGGTTATGAGGACTATTA  
TTATGATTATGCTGTGGAAGAGGAGGAGGAGGAGGAGGAGGAGGACGA  
CATTGAGGCTACTGGAGAAGAGAATAAAGAAGAGGAGGATCCTAAGGG  
AATTCCTGATTTTGGCTAACTGTTTTAAAAAACGTTGATACACTCACTC  
CTTTGATTAAAGAAATATGATGAGCCTATTCTGAAGCTCCTGACAGATATT  
AAAGTTAAGCTTTCAGATCC

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FIG. 9 cont.

TGGCGAGCCCCTCAGTTTCACACTAGAAATTTCACTTCAAACCCAATGAAT  
ATTTCAAAAATGAGTTGTTGACAAAGACCTATGTGCTGAAGTCAAAGCTA  
GCATATTATGATCCCCATCCCTATAGGGGAACTGCGATTGAGTATTCCAC  
AGGCTGTGAGATAGATTGGAATGAAGGAAAGAATGTCACTTTGAAAACC  
ATCAAGAAGAAACAGAAACATCGGATCTGGGGAACAATCCGAACTGTAA  
CTGAAGATTTTCCCAAGGATTCATTTTCAATTTTTCTCTCCTCATGGAA  
TCACCTCAAATGGAAGGGATGGAAATGATGATTTTTTACTTGGTCACAAT  
TTACGTA CTTACATAATTCCAAGATCAGTATTATTTTTCTCAGGTGATGCA  
CTGGAATCTCAGCAGGAGGGGTAGTTAGAGAAGTTAATGATGCAATTT  
ATGACAAAATTATTTATGATAATTGGATGGCTGCAATTGAGGAAGTTAAA  
GCTTGTGTCAAAAACCTTGAGGCATTAGTAGAAGACATTGATCGTTAGA  
GCAGAGTATACATGGCCCTGAAATTAAGTgCCCTAGATATAGTTACTCAA  
GGTATAAGAAgCCTTGTGTTCTGTATTTTgCTTTGTAGTGTAGTTAAAC  
ATATGTTTCAAAAATATAAGAAAAGTTCAAAAACCTAATTAATTTGACCTT  
GAGTTTTAGTAGTAGAATGTTTTCAAGAAATGTACACTGTGGTAAATGAT  
TTAAACACTAGTATAGTGTTGTGTAGCTTAATCCTTCTGAAGTCTTTTTG  
TCATGTAGCTATTAATCTGTGGCTATGAAATGATCAGAAATGCTAAGTGA  
GATCAATATTTGTTTGGAAAAAAATCTTGGGAAACAACCCAAGGGTTTT  
CGCTGTGTGTTGTTTTCTTTTTCTATTTTTGTTTACTTAGTCCTTAGCTAG  
TGGATTTAATTTTGTGTCCTGCTTCATTTTGCAATAACAATGCAGTAG  
AATTTAAACCTTGGATGCTTAAGAGGCCTGCATATAGATAAGAATTTGAG  
GCAAAACTACATTTATTGTTAATAACAGCTTGTTTCATAGGCTCTTGTATTT  
TATGTAAGTGTGATAAATAATGAAAACCTAGTTATATTGAGGTATTGTT  
TGTCGGTGAAGTGTTAGTCACAGTATTTTCAAAGTTTGCACATATTGTT  
CTGTGTAATTGTGTAAGCCATAATTACAGTGTTTAATTCTCTTTTCCTATT  
ACATCATTCAATTGAAAGTGATCACTTTACCATTTTGAAAAGATATTTTCGT  
GTTCTTTCACTGCAAAATAAAAAGAATAAAAATTTGAGAGTGTCTCATGG  
AATTCC

[SEQ ID NO:3]

FIG. 10

human *BPX* 5' region

ACTTAAAGGAAAAATTTATCTATAAACTGACAGAATTTAGAAATAAATA  
CAACAATATGTAAACAGTTTTAATATCTGTGATAGTAACAAATTCTTTAA  
ATCTGGAAAATAATAGTCACTTAAAAATTTAAAAAATTGTTCAATTAATA  
AATGATCCAAGTTAGAAATATGAACAAAATAAACCTCACCAATAATTAC  
TATAGAGAGGAAATTTTAATTACTGCAAAGCTTTCATCCTATAAATACA  
TTATCAAATAGTTTAACCATTTCTTTAATGCTGAGATTTAGATTATTTCCA  
ATTAACTCAAAGCATCAAGCAAATGTTATGATTTCTAAGAATAAACATA  
ACTTTCCATTTTGGCTTTTGTATATATGTATATTTCTAACGGCTGTAAAG  
CCAGCATTAAAGAAGGAGAAGCAGAAAGTCAGTATTGGGACTGGGGTTAT  
TTATAAGCCAGGCAACTGGTTAATTGTGGTTAATTGTCTGGTATGTTTAC  
TAGTCACGTAGTTGTATACACCATACTAGTTTTTTCATCACAGGCCCTCAT  
TCGCCCCCACTGCCATCGGACTTCCTCCTCCTCCCCTCACAGGAAATGTT  
TCGAGAATTTTCAACCTAAAATCATATAGCTTGTGAAAAATACCGACAA  
ACATAATATAGAATATTTAAATAACTGACACGCCACCTAAAGACCATCA  
GTGCTAATTCCTGGTGTTTTTAATCTTTGAAGCGTTTGTTTATCAGCTCTT  
CCACCATCCACCTCTCCCCTCCCCAGGTCCCCGATCTAAAATCAAAGAG  
ATTGATTTAGGATGGGTGGGTGCCTTGTCTTCTCTCATTGTTTCGACATTTT  
AGTTACGTTTTCTCTGAGCTCTCTGGAAAGCATAAAAGTATAATATCTGT  
TAAAAGTTGGATGAATGAACATAATGAACGCAATGGGATTCCAGAAAAT  
CTGCGGGAGATGGGCTAGAGGACGAGGAGGAGGTGGATGAATCAGCCA  
TGTTAGAGAGCCTGGGAAGGTGAGCAGAGTTGAAAACCTTGATAG  
ATCTAATAATTTACTGGCTCTGGGTTTGTCTAGTCACTACATTGCAGCAAA  
TGAGATTAGAGCATAGTTGTGGGAGGGAAGGAGGTGACGCAGCAATCTA  
TTTGCACCTAGAAATTTTAGGCAAGTGATAGCTGCGTAATCATACTGCGG  
CACCGTTTTTTTTCTTGCAGCAGTAGCTGCTTGCGGAGGAGGTCTGCCCAC  
TGCAGCTCTCTGCAGTCTCCGGCTCTCTCCTGCAGGATCGGTCAACGCAG  
CCGTCGCCGCCCTCTGCACCCAGCCAGGTGCGCCACTGCTTCAGTCCGGT  
TCTCAAAGCCTCAGCACCATCTTTTATCCCCGAGCAGCCTGGATCGTCTGT  
TCCCTCAGTCCGGACGCCACTGCTAGGTCCGACCACCGCCGCTTCTGATA  
TTTCGGTGAGTCTTTTCTGTGGAGGTTTGGTCTCCCGATCTCTGTGGTA  
GCCACCTTAGGCGTGTACGGTCCTTTGAAAA

[SEQ ID NO:4]

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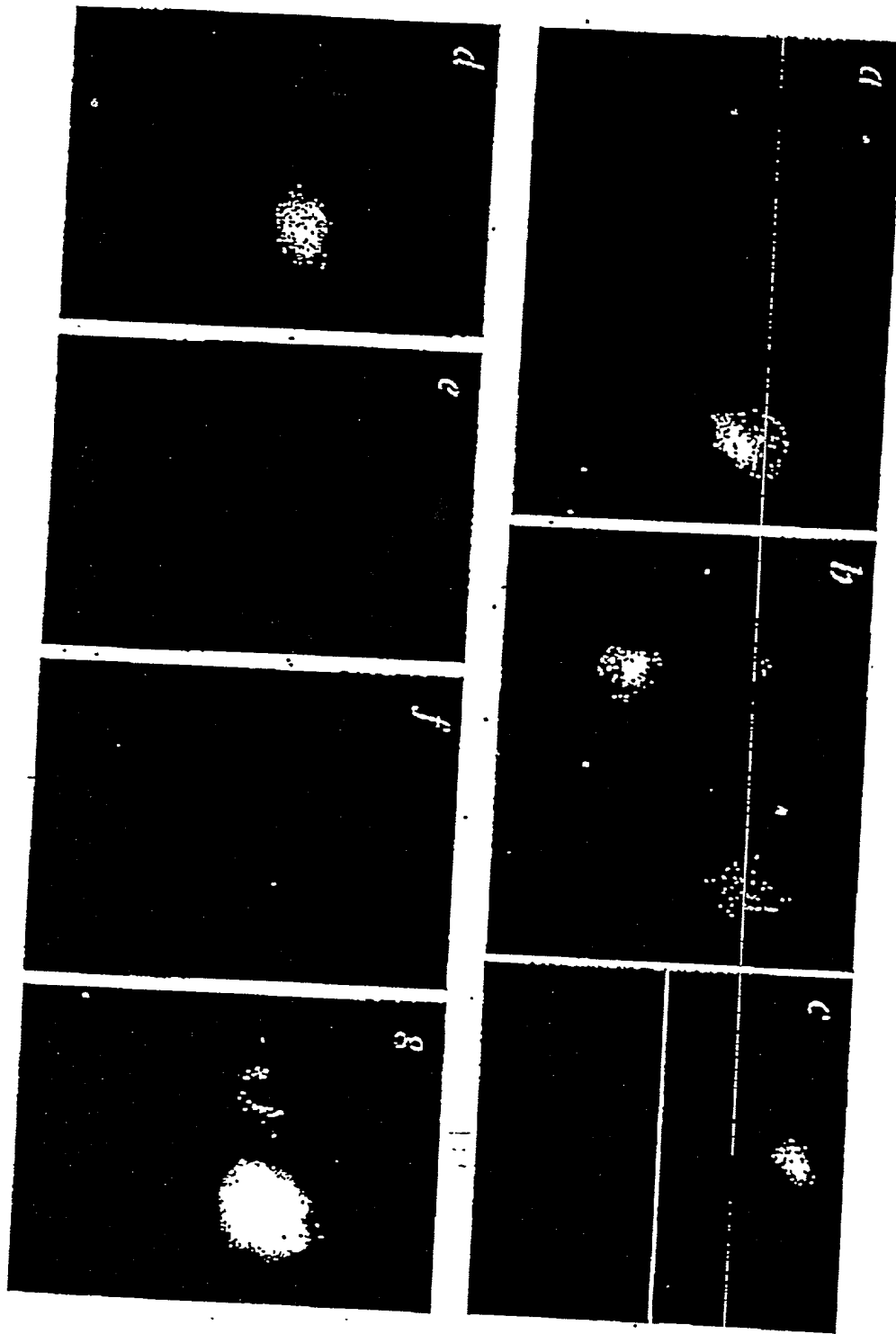


FIGURE 11

# Genomic structure of the *NAP1L2* gene

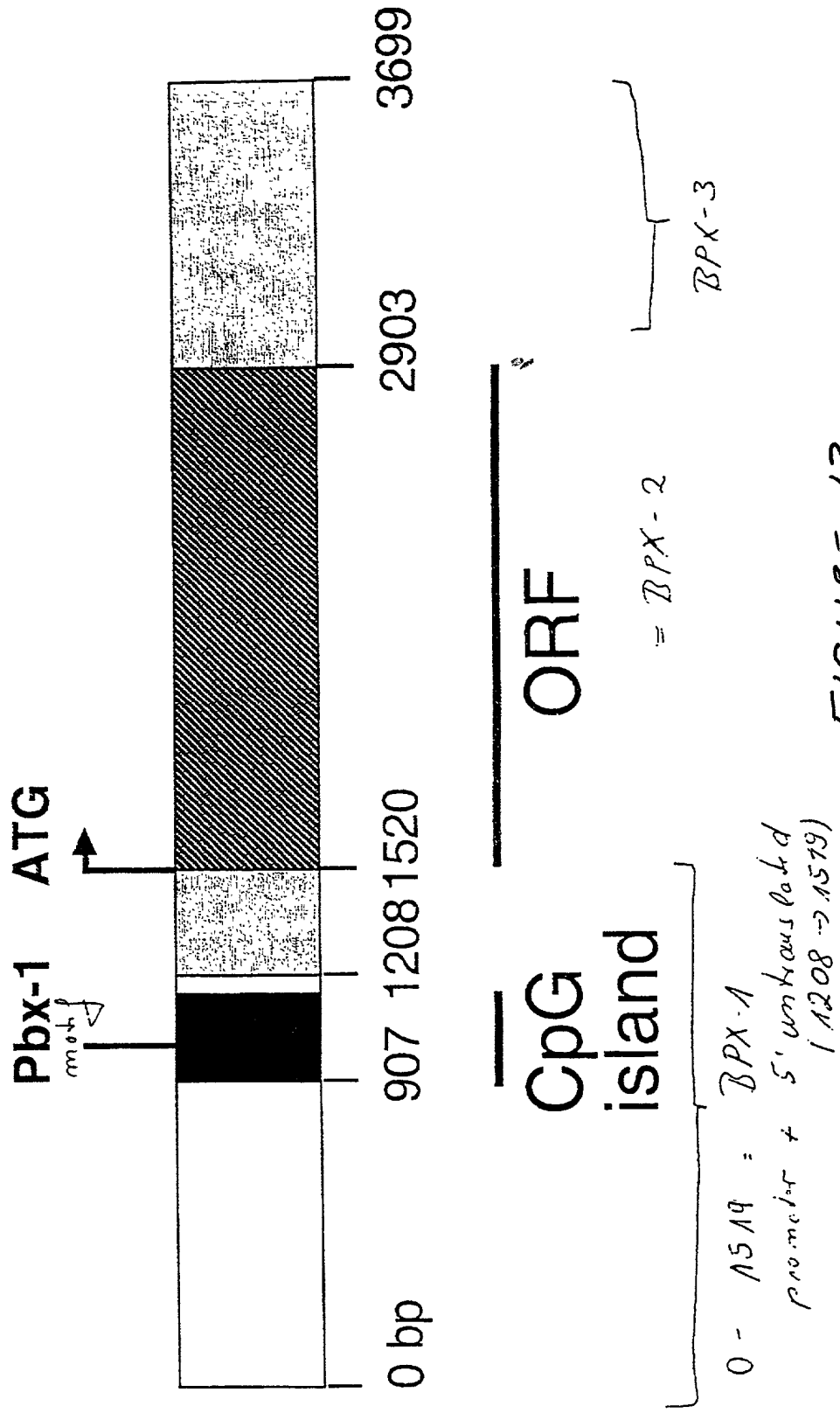


FIGURE 12